

CLAIMS:

1. According to the invention there is provided a steering mechanism for jet-propelled watercraft comprising a rudder, movable between a steering and a non-steering position, and which rudder is configured to couple with the steering column of the watercraft when in the steering position; securing means for securing the steering mechanism to a watercraft; biasing means for biasing the rudder towards the non-steering position; and actuating means for actuating the movement of the rudder towards the steering position automatically, on the speed of the watercraft dropping below a predetermined level.
2. A steering mechanism as claimed in claim 1, wherein the securing mechanism is affixed to an outlet nozzle of the watercraft.
3. A steering mechanism as claimed in claim 1, wherein the securing means incorporates nut-and-bolt fixtures for affixing the steering mechanism to the body of the watercraft.
4. A steering mechanism as claimed in claim 1, wherein the rudder incorporates a plate member located in a substantially ventral position.

5. A steering mechanism as claimed in claim 1, wherein the biasing means incorporates a spring-loaded engaging member that is configured to engage the plate member of the rudder at high speeds or high nozzle velocities, and to disengage from the plate member at low speeds or low nozzle velocities.

6. A steering mechanism as claimed in claim 1, wherein the biasing means incorporates a piston-and-lug arrangement that biases the rudder towards the non-steering position.

7. A steering mechanism as claimed in claim 6, wherein the lug is coupled to the actuating means.

8. A steering mechanism as claimed in claim 1, wherein the actuating means is adapted to detect the speed of the watercraft , and, on detecting that the speed of the watercraft has dropped below a predetermined level, overcomes the biasing means to reverse the direction of its bias, allowing the rudder to move towards the steering position.

9. A steering mechanism as claimed in claim 1, wherein the actuating means is adapted to detect the rate of revolutions of the watercraft engine and may incorporate speed-sensitive apparatus which, on

the engine-revolutions of the watercraft dropping below a predetermined level, overcomes the biasing means to reverse the direction of its bias, allowing the rudder to move towards the steering position.

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10.A steering mechanism as claimed in claim 1, wherein the actuating means is adapted to detect water pressure by a water pressure detection means, and to actuate movement of the rudder in response to the detected water pressure.

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11. A steering mechanism as claimed in claim 10, wherein the water pressure detection means detects water pressure within the outlet nozzle of the watercraft.

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12.A steering mechanism as claimed in claim 10, wherein the water pressure detection means detects water pressure in the surrounding water.

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13.A steering mechanism as claimed in claim 10, wherein the water pressure detection means detects water pressure difference between the outlet nozzle and the surrounding water.

- 14.A steering mechanism as claimed in claim 10, wherein the water pressure detection means is a venturi.
- 5 15.A steering mechanism as claimed in claim 1, wherein the actuating means operates by means of a feedback control device.
- 16.A steering mechanism as claimed in claim 1, wherein the actuation means operates by means of pressurised fluid.
- 10 17.A steering mechanism as claimed in claim 16, wherein the source of pressurized fluid is a pressurized cylinder.
- 15 18.A steering mechanism as claimed in claim 17, wherein the pressurized fluid is released from the pressurized cylinder for use in the actuation means by a solenoid.
- 19.A steering mechanism as claimed in claim 1, wherein the actuation means is a pneumatic piston and cylinder arrangement.
- 20 20.A steering mechanism as claimed in claim 1, wherein the actuation means is a hydraulic piston and cylinder arrangement.

21. A steering mechanism as claimed in claim 1, wherein the biasing means biases the rudder towards the steering position, and the actuating means automatically actuates the movement of the rudder towards the non-steering position, on the speed of the watercraft dropping below a predetermined level.

22. A method for the automatic deployment of a steering mechanism in a watercraft, comprising the steps of automatically controlling the actuation of a rudder between a steering and non-steering position in response to the speed of the watercraft.